

IN THE CLAIMS:

Claims 1-28 (Canceled)

5 29. (Currently Amended) ~~Cable~~ A cable lug in combination with a nut, comprising:

said cable lug having with a tubular receiving portion for the a cable, an integrally formed flat part connecting portion which has a hole, connected to said tubular receiving portion, said flat part connecting portion having a hole therethrough defined by a wall, said hole having a central axis; and

10 a said nut comprising a body having an undercut, said nut being which is held captively; preferably held to be and rotatable; on the flat part connecting portion, the nut not passing through the flat part connecting portion and being held by a reshaped holding material portion of the flat part connecting portion which projects into an said undercut formed on said nut, characterized in that the said reshaped holding material portion is being accommodated in the
15 undercut, wherein with an axial clearance is provided between said reshaped holding material and the wall which defines said hole.

30. (Currently Amended) ~~Cable~~ A cable lug in combination with a functional part, comprising:

20 said cable lug having with a tubular receiving portion for the a cable, an integrally formed flat part connecting portion which has a hole, connected to said tubular receiving portion, said

flat part connecting portion having a hole therethrough defined by a wall, said hole having a central axis; and

a functional part comprising a body having an undercut, said functional part being which is held captively, ~~preferably held to be~~ and rotatable; on the flat part connecting portion, the functional part being held by a holding material portion which projects into ~~an~~ said undercut ~~formed on said functional part~~, this holding material portion being ~~rooted~~ seated in a region sunk-in in a step-like manner with respect to the unaffected surrounding region of the flat part connecting portion, the undercut being formed with an axial extent which is equal to or less than the axial extent (~~thickness~~) of the unaffected flat part connecting portion, ~~characterized in that the~~ said step-like sunk-in region is rotationally symmetrical and has a conical portion which is open outward and upward and has at least one conical surface.

31. (Currently Amended) ~~Cable lug~~ The combination according to Claim 29 or 30, ~~characterized in that~~ wherein the holding material portion is accommodated in the undercut with radial play.

32. (Currently Amended) ~~Cable lug~~ The combination according to Claim 29, ~~characterized in that~~ wherein the holding material portion has a surface which faces the nut or the functional part and runs directly into a conical area of the flat part connecting portion.

33. (Currently Amended) ~~Cable lug~~ The combination according to Claim 30, ~~characterized in that wherein~~ the conical area runs directly into a surface of the holding material portion, which surface faces the functional part.

5 34. (Currently Amended) ~~Cable lug~~ The combination according to either of Claims 29 or 30, ~~characterized in that wherein~~ the holding material portion is formed to be rotationally symmetrical.

35. (Currently Amended) ~~Cable lug~~ The combination according to Claim 30 or 32,
10 ~~characterized in that wherein~~ the conical area of the conical portion is formed to be rotationally symmetrical.

36. (Currently Amended) ~~Cable lug~~ The combination according to either of Claims 30 or 32, ~~characterized in that wherein~~ two conical surfaces are provided, and in that at least one of the
15 conical surfaces of the conical portion runs at an acute angle to a horizontal (H) or a vertical (V).

37. (Currently Amended) ~~Cable lug~~ The combination according to Claim 29 or 30, ~~characterized in that wherein~~ the undercut is formed outside a thread of the nut or the functional part.

20 38. (Currently Amended) ~~Cable lug~~ The combination according to Claim 29, ~~characterized in that wherein~~ an inner face of the portion which forms the undercut has a cylindrical surface.

39. (Currently Amended) ~~Cable lug~~ The combination according to Claim 38, characterized in that wherein the cylindrical surface of the inner face of the portion which forms the undercut merges into the thread root of the nut.

5 40. (Currently Amended) ~~Cable lug~~ The combination according to either of Claims 29 or 30, characterized in that wherein both an upper and a lower delimiting surface of the undercut overlap the flat part connecting portion ~~in the pressed state~~ in a lateral projection.

10 41. (Currently Amended) ~~Cable lug~~ The combination according to Claim 40, characterized in that wherein the lower delimiting surface of the undercut extends over more than half of the associated stepped area in a vertical projection.

42. (Currently Amended) ~~Cable lug~~ The combination according to Claim 40, characterized in that wherein an upper delimiting surface of the undercut is part of a stepped area.

15 43. (Currently Amended) ~~Cable lug~~ The combination according to Claim 29 or 30, characterized in that wherein the hole is formed with a hole step which is provided before the pressing.

20 44. (Currently Amended) ~~Cable lug~~ The combination according to Claim 43, characterized in that wherein the hole step is formed in the lower region of the hole which faces away from the nut or functional part.

45. (Currently Amended) ~~Cable lug~~ The combination according to Claim 43, characterized in that wherein the hole step projects toward the interior of the hole.

46. (Currently Amended) ~~Cable lug~~ The combination according to Claim 43, characterized in that wherein a radial extent (\oplus) of the hole step corresponds to the a radial depth (\ominus) of the undercut.

47. (Currently Amended) ~~Cable lug~~ The combination according to Claim 43, characterized in that wherein, in terms of depth, the hole step is formed outside the lower region of the nut or functional part in the pressed state.

48. (Currently Amended) Method for forming a connection; comprising:

~~which is captive but allows axial and possibly rotary movement, of providing a cable lug to and a functional part, such as a nut, the cable lug having a tubular receiving portion for the a cable and a flat part connecting portion connected thereto, said flat part connecting portion having an aperture defined by a wall provided therethrough; and the functional part being pressed~~

pressing said nut into the undeformed said flat part connecting portion by penetrating or passing a portion of said nut through a said hole which is formed therein, characterized in that such that a rotationally symmetrical circumferential step-like area comprising at least one step surface is formed in the flat part connecting portion in the course of the pressing-in process,

wherein at least one of the step surfaces ~~being formed as~~ forms a conical surface running at an acute angle to a horizontal (~~H~~) or to a vertical (~~V~~).

49. (Currently Amended) Nut which can be inserted into a hole in a ~~flat part connecting~~
5 ~~portion of~~ a cable lug, comprising:

a body ~~one end of the nut, in relation to its tightening or loosening direction,~~ having a radially opening undercut which is provided in ~~the~~ an axial direction of the nut and has an upper delimiting surface and a lower delimiting surface, ~~characterized in that the~~ said undercut is being formed to be rotationally symmetrical and the upper delimiting surface is part of a rotationally
10 symmetrical stepped area ~~which is formed on the nut.~~

50. (Currently Amended) Nut according to Claim 49, ~~characterized in that~~ wherein the undercut does not laterally overlap a thread of the nut.

15 51. (Currently Amended) Nut according to Claim 49, ~~characterized in that the~~ wherein an upper end of ~~the nut~~ said body has a pressing area which is smaller than an overall area projected in the axial direction of ~~the nut~~ said body.

20 52. (Currently Amended) Nut according to Claim 51, ~~characterized in that~~ wherein the pressing area is planar.

53. (Currently Amended) Nut according to Claim 49, ~~characterized in that~~ wherein a step edge of the step ~~surfaces~~ area is positioned radially outside the undercut at a spacing which corresponds to a radial extent of the undercut.

5 54. (Currently Amended) Nut according to Claim 49, ~~characterized in that said nut has~~ further including a plastic insert attached to said body.

55. (Currently Amended) Nut according to Claim 54, ~~characterized in that~~ wherein the plastic insert is partly covered by a pressing area.

10 56. (Currently Amended) Nut according to Claim 49, ~~characterized in that~~ wherein the step ~~surface~~ area merges into a horizontal surface.

15 57. (Currently Amended) Nut according to Claim 56, ~~characterized in that~~ wherein the horizontal surface has a circular outer contour.

58. (Currently Amended) Nut according to Claim 56, ~~characterized in that the~~ wherein a radially outer region of the horizontal surface is part of a compression flange which ~~is~~ extends radially outwardly from said body ~~offset with respect to the head of the functional part~~.

59. (Currently Amended) Nut according to Claim 58, wherein ~~49, characterized in that~~ the undercut is positioned within a vertical projection of said body ~~of the head which is reduced by the flange.~~

5 60. (New) A captive clinch nut for rotatable attachment to an apertured sheet, comprising:

a nut body having an axial threaded bore;

a first bearing surface on a bottom side of side of said nut body;

a displacer unitary with said nut body and located directly below said first bearing surface, the displacer having an outside diameter less than an outside diameter of said first bearing surface;

a rigid tubular shank being substantially non-deformable in its unattached free state, unitary with said nut body, and coaxially extending from said displacer, said shank being outwardly flared toward a distal end;

wherein a neck of said shank immediately adjacent said displacer has an outside diameter less than the outside diameter of said displacer and less than an outside diameter of said flared end; and

an undercut between said neck and said displacer for receiving a cold flow of metal of said sheet.

61. (New) The captive clinch nut of claim 60, further including a second displacer surface on a bottom side thereof parallel to said first bearing surface.

62. (New) The captive clinch nut of claim 61 further including an outwardly extending flange forming a base of said nut body.

63. (New) An assembly of parts including the captive nut of claim 61 and further including the sheet having the aperture formed therein, the displacer and shank of said nut body being located within said sheet and being coaxial with said aperture such that a ductile deformed portion of said sheet lies within the undercut; and

a space between said shank and an inside wall of said sheet aperture such that the nut is freely rotatable within said sheet while being secured against substantial axial displacement therefrom.

64. (New) An assembly of parts as defined in claim 63, wherein said the nut is axially displaceable from said sheet a predetermined amount.

65. (New) The assembly of parts of claim 63, wherein the combined lengths of said displacer and said shank are less than the thickness of said sheet such that said shank does not extend beyond a back side surface of said sheet.

66. (New) The assembly of parts of claim 65 wherein said nut is composed of a material having a hardness substantially greater than said sheet.

67. (New) The assembly of parts of claim 66 wherein the portion of said sheet which lies within said undercut area is received therein by the cold flow of metal of said sheet.

68. (New) The captive clinch nut of claim 62, further including a head portion having tool-engaging flats on its outer surface.

69. (New) The captive clinch nut of claim 68, wherein said head is of hexagonal cross-section.

70. (New) The captive clinch nut of claim 69, wherein said threaded bore extends through the entire length of the nut.

71. (New) The captive clinch nut of claim 61, wherein the outer surfaces of said displacer and said shank are of reduced friction for providing bearing surfaces of said nut against said sheet.

72. (New) The captive clinch nut of claim 61, wherein said first bearing surface is integral with said nut body.

73. (New) The captive clinch nut of claim 61, wherein the displacer is tapered inwardly.

74. (New) An assembly of parts including the captive nut of claim 61 and further including a sheet having an aperture formed therein, the displacer and shank of said nut body being located within said sheet and being coaxial with said aperture such that a ductile deformed portion of said sheet lies within the undercut; and

5 a space between outside surfaces of said shank and an inside wall of said sheet aperture such that the nut is freely rotatable within said sheet while being secured against substantial axial displacement therefrom, wherein the combined lengths of said displacer and said shank are less than the thickness of said sheet such that said shank does not extend beyond a back side surface of said sheet.

10 75. (New) The assembly of parts of claim 74, wherein said nut is composed of a material having a hardness substantially greater than said sheet.

15 76. (New) The assembly of parts of claim 75, wherein the portion of said sheet which lies within said undercut area is received therein by the cold flow of metal of said sheet.

77. (New) The captive clinch nut of claim 60, further including a second displacer surface on a bottom side thereof which is not parallel to said first bearing surface.

20 78. (New) The captive nut of claim 77, wherein the displacer is tapered inwardly.

79. (New) The captive clinch nut of claim 60 further including an outwardly extending flange forming a base of said nut body.

80. (New) An assembly of parts including the captive nut of claim 60 and further including the sheet having the aperture formed therein, the displacer and shank of said nut body being located within said sheet and being coaxial with said aperture such that a ductile deformed portion of said sheet lies within the undercut; and

a space between said shank and an inside wall of said sheet aperture such that the nut is freely rotatable within said sheet while being secured against substantial axial displacement therefrom.

81. (New) An assembly of parts as defined in claim 80, wherein said the nut is axially displaceable from said sheet a predetermined amount.

82. (New) The assembly of parts of claim 80, wherein the combined lengths of said displacer and said shank are less than the thickness of said sheet such that said shank does not extend beyond a back side surface of said sheet.

83. (New) The assembly of parts of claim 82, wherein said nut is composed of a material having a hardness substantially greater than said sheet.

84. (New) The assembly of parts of claim 83, wherein the portion of said sheet which lies within said undercut area is received therein by the cold flow of metal of said sheet.

85. (New) The captive clinch nut of claim 60, further including a head portion having tool-
engaging flats on its outer surface.

86. (New) The captive clinch nut of claim 85, wherein said head is of hexagonal cross-section.

87. (New) The captive clinch nut of claim 86, wherein said threaded bore extends through the entire length of the nut.

88. (New) The captive clinch nut of claim 60, wherein the outer surfaces of said displacer and said shank are of reduced friction for providing bearing surfaces of said nut against said sheet.

89. (New) The captive clinch nut of claim 60, wherein said first bearing surface is integral with said nut body.

90. (New) The captive clinch nut of claim 60, wherein the displacer is tapered inwardly.

91. (New) An assembly of parts including the captive nut of claim 60 and further including a sheet having an aperture formed therein, the displacer and shank of said nut body being located within said sheet and being coaxial with said aperture such that a ductile deformed portion of said sheet lies within the undercut; and

5 a space between outside surfaces of said shank and an inside wall of said sheet aperture such that the nut is freely rotatable within said sheet while being secured against substantial axial displacement therefrom, wherein the combined lengths of said displacer and said shank are less than the thickness of said sheet such that said shank does not extend beyond a back side surface of said sheet.

10 92. (New) The assembly of parts of claim 91, wherein said nut is composed of a material having a hardness substantially greater than said sheet.

15 93. (New) The assembly of parts of claim 92, wherein the portion of said sheet which lies within said undercut area is received therein by the cold flow of metal of said sheet.